CLAIMS

What is claimed is:

1. A lancing device comprising:
a lancing mechanism having:
a lancet carriage;
a lancet holder slidably connected to the lancet carriage; and
a lancet attached to the lancet holder;
a floating probe; and
a pressure tip for engaging a target site and creating a target site bulge;
wherein the floating probe is adapted to floatably contact said target site bulge and is configured to operatively interact with the lance carriage to control a penetration depth of the lancet into the bulge.

2. The lancing device of claim 1 further comprising:
a housing;
wherein the lancet carriage is slidably connected to the housing, the lancet holder is slidably connected to the lancet carriage and the floating probe is slidably connected to the housing.

3. The lancing device of claim 1, wherein the floating probe is formed from a rigid material.

4. The lancing device of claim 1, further comprising a launcher spring and a decoupling spring arranged in series.

5. The lancing device of claim 1, wherein the penetration depth is in the range of 0.25 to 1.5 mm.

6. The lancing device of claim 1 further comprising a stop lock assembly.

7. The lancing device of claim 2, wherein the lancing mechanism further includes an over-travel spring and a launcher spring, wherein the housing includes a floating

probe spring, and wherein the floating probe spring, launcher spring and floating probe spring are configured to control movement and positioning of the floating probe, lancet carriage and lancet holder.

8. The lancing device of claim 1, wherein the pressure tip includes a probe stop surface.

9. The lancing device of claim 1, wherein the lancet carriage includes a lancet holder over-travel stop feature.

10. A method for lancing a target site, the method comprising:

providing a lancing device that includes:

a lancet carriage;

a lancet holder slidably connected to the lancet carriage; and

a lancet attached to the lancet holder;

a floating probe; and

a pressure tip for engaging a target site and creating a target site bulge;

wherein the floating probe is adapted to floatably contact said target site bulge and is configured to operatively interact with the lance carriage to control a penetration depth of the lancet into the bulge;

contacting the pressure tip with the target site;

urging the pressure tip towards the target site, thereby creating target site bulge such that the floating probe is floating on a surface of the target site bulge; and

lancing the target site bulge with the lancet while the floating probe operatively interacts with the lance carriage to control a penetration of the lancet.

11. The method of claim 10, wherein the providing step provides a lancing device that further includes a stop lock assembly and wherein the lancing step lances the target site bulge while the stop lock assembly prevents movement of the floating probe.